State of North Carolina Department of Environment and Natural Resources Division of Water Quality

Animal Waste Management Systems

Request for Certificate of Coverage Facility Currently Covered by an Expiring NPDES General Permit

On July 1, 2012, the North Carolina NPDES General Permits for Animal Waste Management Systems will expire. Facilities that have been issued Certificates of Coverage to operate under these NPDES General Permits must apply for renewal within 30 days of receipt of this application.

Please do not leave any question unanswered. Please make any necessary corrections to the data below.

	question unar	nswered. Please make any necessa	ry corrections to the data below.
1.	Facility Number: 94-15	and Certificate of Cove	rage Number /6//5
2.	Facility Name: <u>Ilune v</u> Cu	TT Pig FARMS M	helick H
3.	Landowner's name (same as on the	: Waste Management Plan).	21. · V //
4.	Landowner's mailing address: 2	8376 Milliagne	R.J.
	City/State: Albemarle	N.C.	Zip: 28001
	Telephone Number (include area co	ode): 704-982-1976 E-maj	Z.tp: <u>& 0.007</u>
5.	Facility's physical address: _28	376 Millincoppe Ri	d,
	City/State: Albem ARle		Zip: _2860 (
6.	County where facility is located:	_ / /	
7.	Farm Manager's name (If different t	than the Landowner): Rodge	K. Hune au TT
8.	Farm Manager's telephone number ((include area code): 704-9	82-0280
9.	Integrator's name (if there is not an i	integrator write "None").	Prais Fac
10.	Lessee's name (if there is not a lesse	e write "None"):	INP
11.	Indicate animal operation type and n	number:	A.C.
	Swine	Cattle	<u>Dry Poultry</u>
	Wean to Finish 2590	Dairy Calf	Non Laying Chickens
	Wean to Feeder 800	Dairy Heifer	Laying Chickens
	Farrow to Finish	Milk Cow	Turkeys
	Feeder to Finish 2590	Dry Cow	Other
	Farrow to Wean	Beef Stocker Calf	Pullets
	Farrow to Feeder	Beef Feeder	Turkey Poults
	Boar/Stud	Beef Brood Cow	
	Gilts	Other	-
	Other		
	Horses - Horses	0 1	Wet Poultry
	Horses Other	Sheep - Sheep	Non Laying Pullets
DOR:	Horses - Other	Sheep - Other	Layers
FORM	I RENEWAL-NPDES-12/2011	_	

Submit two (2) copies of the most recent <u>Certified Animal Waste Management Plan (CAWMP)</u>. The CAWMP must include the following components. Some of these components may not have been required at the time the facility was certified but should be added to the CAWMP for permitting purposes:

- The Waste Utilization Plan (WUP) must include the amount of Plant Available Nitrogen (PAN) produced and utilized by the facility
- The method by which waste is applied to the disposal fields (e.g. irrigation, injection, etc.)
- A map of every field used for land application
- The soil series present on every land application field
- The crops grown on every land application field
- The Realistic Yield Expectation (RYE) for every crop shown in the WUP
- The PAN to be applied to every land application field
- Phosphorous to be applied on every land application field with a "HIGH" PLAT rating.
- The waste application windows for every crop utilized in the WUP
- The required NRCS Standard specifications
- A site schematic
- · Emergency Action Plan
- Insect Control Checklist with chosen best management practices noted
- Odor Control Checklist with chosen best management practices noted
- Mortality Control Checklist with the selected method noted. A mass mortality plan must also be included.
- Site-Specific Conservation Practices necessary to prevent runoff of pollutants to waters of the State.
- PLAT results including datasheets for each field.
- Lagoon/storage pond capacity documentation (design, calculations, etc.); please be sure to include any site evaluations, wetland determinations, or hazard classifications that may be applicable to your facility
- Operation and Maintenance Plan

I attest that this application has been reviewed by me and is accurate and complete to the best of my knowledge. I understand that, if all required parts of this application are not completed and that if all required supporting information and attachments are not included, this application package will be returned to me as incomplete. **Note**: In accordance with NC General Statutes 143-215.6A and 143-215.6B, any person who knowingly makes any false statement, representation, or certification in any application may be subject to civil penalties up to \$25,000 per violation. (18 U.S.C. Section 1001 provides a punishment by a fine of not more than \$10,000 or imprisonment of not more than 5 years, or both for a similar offense.)

Printed Name of Signing Official (Landowner, or if multiple Landowners all landowners should sign. If Landowner is a corporation, signature should be by a principal executive officer of the corporation):

Name: Kodney K. Hung CuTT	Title: <u>Co-Oumer</u>
Name: Rodney K. Hune CUTT Signature: Rodney K. Hunez Cutt	Date: 1-12-2011
Name:	Title:
Signature:	Date:

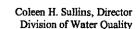
THE COMPLETED APPLICATION SHOULD BE SENT TO THE FOLLOWING ADDRESS:

NCDENR – DWQ Animal Feeding Operations Unit 1636 Mail Service Center Raleigh, North Carolina 27699-1636 Telephone Number: (919) 807-6300

Fax Number: (919) 807-6354

FORM RENEWAL-NPDES-12/2011







August 1, 2007

Melvin K Huneycutt Huneycutt Pig Farms 28376 Millingport Rd Albemarle, NC 28001

Subject:

Certificate of Coverage No. NCA284015

Huneycutt Pig Farms

Animal Waste Management System

Stanly County

Dear Melvin K Huneycutt:

In accordance with your application received on 12/19/2006, we are hereby forwarding to you this Certificate of Coverage (COC) issued to Melvin K Huneycutt, authorizing the operation of the subject animal waste management system in accordance with NPDES General Permit NCA200000.

This approval shall consist of the operation of this system including, but not limited to, the management and land application of animal waste as specified in the facility's Certified Animal Waste Management Plan (CAWMP) for the Huneycutt Pig Farms, located in Stanly County, with an animal capacity of no greater than the following swine annual averages:

Wean to Finish: 0
Wean to Feeder: 800

Feeder to Finish 2590
Farrow to Wean 0

Boar/Stud: 0
Gilts: 0

Farrow to Finish. 0

Farrow to Feeder: 0

If this is a Farrow to Wean or Farrow to Feeder operation, there may also be one boar for each 15 sows. Where boars are unneccessary, they may be replaced by an equivalent number of sows. Any of the sows may be replaced by gilts at a rate of 4 gilts for every 3 sows.

The COC shall be effective from the date of issuance until June 30, 2012 and replaces the NPDES COC issued to this facility with an expiration date of July 1, 2007. Pursuant to this COC, you are authorized and required to operate the system in conformity with the conditions and limitations as specified in the General Permit, the facility's CAWMP, and this COC. An adequate system for collecting and maintaining the required monitoring data and operational information must be established for this facility. Any increase in waste production greater than the certified design capacity or increase in number of animals authorized by this COC (as provided above) will require a modification to the CAWMP and this COC and must be completed prior to actual increase in either wastewater flow or number of animals.

Please carefully read this COC and the enclosed General Permit. This General Permit contains many new requirements than the previous NPDES General Permit. Enclosed for your convenience is a package containing the new and revised forms used for record keeping and reporting. Please pay careful attention to the record keeping and monitoring conditions in this permit. The Animal Facility Annual Certification Form must be completed and returned to the Division of Water Quality by no later than March 1st of each year.

If your Waste Utilization Plan has been developed based on site-specific information, careful evaluation of future samples is necessary. Should your records show that the current Waste Utilization Plan is inaccurate you will need to have a new Waste Utilization Plan developed.

NorthCarolina Naturally

Customer Service:

The issuance of this COC does not excuse the Permittee from the obligation to comply with all applicable laws, rules, standards, and ordinances (local, state, and federal), nor does issuance of a COC to operate under this permit convey any property rights in either real or personal property.

Upon abandonment or depopulation for a period of four years or more, the Permittee must submit documentation to the Division demonstrating that all current NRCS standards are met prior to restocking of the facility.

Per 15A NCAC 02T .0111(c), a compliance boundary is provided for the facility and no new water supply wells shall be constructed within the compliance boundary. Per NRCS standards a 100-foot separation shall be maintained between water supply wells and any lagoon or any wetted area of a spray field.

Per 15A NCAC 02T .1306, any containment basin, such as a lagoon or waste storage structure, shall continue to be subject to the conditions and requirements of the facility's permit until closed to NRCS standards and the permit is rescinded by the Division.

Please be advised that any violation of the terms and conditions specified in this COC, the General Permit or the CAWMP may result in the revocation of this COC, or penalties in accordance with NCGS 143-215.6A through 143-215.6C, the Clean Water Act and 40 CFR 122.41 including civil penalties, criminal penalties, and injunctive relief.

If you wish to continue the activity permitted under the General Permit after the expiration date of the General Permit, an application for renewal must be filed at least 180 days prior to expiration.

This COC is not automatically transferable. A name/ownership change application must be submitted to the Division prior to a name change or change in ownership.

If any parts, requirements, or limitations contained in this COC are unacceptable, you have the right to apply for an individual NPDES Permit by contacting the staff member listed below for information on this process. Unless such a request is made within 30 days, this COC shall be final and binding.

This facility is located in a county covered by our Mooresville Regional Office. The Regional Office Aquifer Protection Staff may be reached at (704) 663-1699. If you need additional information concerning this COC or the General Permit, please contact the Animal Feeding Operations Unit staff at (919) 733-3221.

Sincerely,

for Coleen H. Sullins, Director

2 Bust

Enclosures (General Permit NCA200000, Record Keeping and Reporting Package)

cc: (Certificate of Coverage only for all cc's)
Stanly County Health Department
Stanly County Soil and Water Conservation District
Mooresville Regional Office, Aquifer Protection Section
AFO Unit Central Files
Permit File NCA284015

Nutrient Management Plan For Animal Waste Utilization 05-14-2012

This plan has been prepared for:

Huneycutt Pig Farm Melvin K Huneycutt 28376 Millingport Rd Albemarle, NC 28001 980-581-1904

This plan has been developed by:

Gerald McSwain

Stanly Soil & Water Conservation District

26032-C Newt Rd

Albemarle, NC 28001

704-982-6811 Ext 3

Developer Signature

Type of Plan: Nutrient Management with Manure Only

Owner/Manager/Producer Agreement

I (we) understand and agree to the specifications and the operation and maintenance procedures established in this nutrient management plan which includes an animal waste utilization plan for the farm named above. I have read and understand the Required Specifications concerning animal waste management that are included with this plan.

Rodeak Hune, art	5.23-12
Signature (owner)	Date
Signature (manager or producer)	Date

This plan meets the minimum standards and specifications of the U.S. Department of Agriculture - Natural Resources Conservation Service or the standard of practices adopted by the Soil and Water Conservation Commission.

Plan Approved By:	Derald	McSwain	5-23-2012
	Technical Specia		Date

RECEIVED/DENR/DWQ

JUN 2 2 2012

Date Printed: 05-14-2012 Cover Page 1

Nutrients applied in accordance with this plan will be supplied from the following source(s):

Commercial Fertilizer is not included in this plan.

U1	Huneycutt Pig period by a 2,5	Farm Sludge w 90 animal Swir	aste generated 1 ne Finishing Lag	83,566 gals in a 2 ye oon Sludge operation	ar(s) and 3 month(s)
	Estima	ted Pounds of I	Plant Available N	Nitrogen Generated	
Broadcast		-	5919		
Incorporated			7052		
Injected			7556		
Irrigated			5541		
	Max. Avail. PAN (lbs) *	Actual PAN Applied (lbs)	PAN Surplus/ Deficit (lbs)	Actual Volume Applied (Gallons)	Volume Surplus/ Deficit (Gallons)
Year 1	5,919	9004	-3,085	279,231	-95,665
Year 2	5,919	7763	-1,844	240,743	-57,177

U2	animal Swine l	Farm lagoon lie Finishing Lagoo ies of approxin	on Liquid operat	rated 2,356,900 gals/ion. This production	year by a 2,590 facility has waste
	Estimated I	ounds of Plant	Available Nitro	gen Generated per Ye	ear
Broadcast			7654		
Incorporated			13145	5	
Injected			14476	5	
Irrigated			8320)	
)	Max. Avail. PAN (lbs) *	Actual PAN Applied (lbs)	PAN Surplus/ Deficit (lbs)	Actual Volume Applied (Gallons)	Volume Surplus/ Deficit (Gallons)
Year 1	8,310	16270	-7,960	4,807,921	-2,451,021
Year 2	8,100	16030	-7,930	4,798,589	-2,441,689

This plan includes a User Defined Source to determine the total pounds of PAN in lieu of NRCS Standard values. Refer to North Carolina Cooperative Extension Service publication AG-439-42 entitled "Soil Facts: Use of On-Farm Records for Modifying a Certified Animal Waste Management Plan" for guidance on using on-farm records to develop a User Defined Source.

Note: In source ID, S means standard source, U means user defined source.

^{*} Max. Available PAN is calculated on the basis of the actual application method(s) identified in the plan for this source.

Narrative

2590 feeder to finish manure accumilated 2.7 gal per animal per day x 365 day per year = 2,552,445 gal per year

800 weaner to feeder .61 gal per animal per day x 365 days per year = 178,120 gal per year Total 2,730,565 gals per year This is liquid waste generated.

This is sludge waste generated:

feeder to finish .10 gals per animial per day x 2590 animals x 365 days per year = 94,535 gal of sludge per year.

weaner to feeder .022 gals per animal per day x 800 animals x 365 days per year = 6,400 gals of sludge

Total of 100,935 gal of waste generated per year.

All dead animales go to the rendering plant.

Land application site:

Allow a 30 foot buffer next to ditches

75 feet form any residential property boundary (any property with a residence on it)

75 feet from any perennial stream

The table shown below provides a summary of the crops or rotations included in this plan for each field. Realistic Yield estimates are also provided for each crop, as well as the crop's P2O5 Removal Rate. The Leaching Index (LI) and the Phosphorous Loss Assessment Tool (PLAT) Rating are also provided for each field, where available.

If a field's PLAT Rating is High, any planned manure application is limited to the phosphorous removal rate of the harvested plant biomass for the crop rotation or multiple years in the crop sequence. Fields with a Very High PLAT Rating should receive no additional applications of manure. Regardless of the PLAT rating, starter fertilizers may be recommended in accordance with North Carolina State University guidelines or recommendations. The quantity of P2O5 applied to each crop is shown in the following table if the field's PLAT rating is High or Very High.

	Planned	l Crops S	Summa	ry							
	Tract	Field	Total Acres	Useable Acres	Plat Rating	LI	Soil Series	Crop Sequence	RYE	P2 Removal (lbs/acre)	Applied (lbs/acre)
_	10699	10	8.58	8.00	Medium	15.0	Georgeville	Corn, Grain	119 bu,	52	N/A
-								Wheat, Grain	57 bu.	29	N/A
								Soybeans, Manured, Double Crop	40 bu.	32	N/A
/	10699	11	10.39	10.00	Medium	15.0	Georgeville	Wheat, Grain	57 bu.	29	N/A
	<u> </u>							Soybeans, Manured, Double Crop	40 Ես.	32	N/A
								Com, Grain	119 bu.	52	N/A
1	1226	1	12.59	12.50	Medium	15.0	Tatum	Wheat, Grain	51 bu.	26	N/A
				=				Soybeans, Manured, Double Crop	35 bu.	28	N/A
				_				Corn, Grain	110 bu.	48	N/A
_	1226	2	2.51	2.50	Medium	15.0	Tatum	Com, Grain	110 bu.	48	N/A
								Wheat, Grain	51 bu.	26	N/A
								Soybeans, Manured, Double Crop	35 bu.	28	N/A
	1768	1	36.65	34.50	Medium	15.0	Tatum	Wheat, Grain	52 bu.	26	N/A
								Soybeans, Manured, Double Crop	36 bu.	29	N/A
								Corn, Grain	114 bu.	50	N/A
	√ 1 <i>7</i> 68	2	6.80	6.00	Medium	15.0	Georgeville	Corn, Grain	l 19 bu.	52	N/A
								Wheat, Grain	57 bu.	29	N/A
İ								Soybeans, Manured, Double Crop	40 Ես.	32	N/A
	1768	3	27.00	21.30	Medium	15.0	Tarrus	Com, Grain	114 bu.	50	N/A
								Wheat, Grain	52 bu.	26	N/A
								Soybeans, Manured, Double Crop	36 bu.	29	N/A
1	1769	1	22.90	22.00	Low	15.0	Georgeville	Corn, Grain	119 bu.	52	N/A
								Wheat, Grain	57 bu.	29	N/A
			7.1			ŀ		Soybeans, Manured, Double Crop	40 bu.	32	N/A
J	6033	1	8.86	8.00	Medium	15.0	Badin	Com, Grain	110 bu.	48	N/A
֓								Wheat, Grain	51 bu.	26	N/A
Ī								Soybeans, Manured, Double Crop	35 bu.	28	N/A

Preview

Database Version 3.1

Date Printed 7/2/2012

PCS Page 1 of 2

Planned Crops Summary

Tract	Field	Total Acres	Useable Acres	Plat Rating	LI	Soil Series	Crop Sequence	RYE	Removal	O5 Applied (lbs/acre)
6033	2	5.98	5.00	Medium	15.0	Badin	Wheat, Grain	51 bu.	26	N/A
							Soybeans, Manured, Double Crop	35 bu.	28	N/A
							Corn, Grain	l 10 bu.	48	N/A
6033	3	33.48	32.00	Medium	15.0	Badin	Wheat, Grain	48 bu.	24	N/A
							Soybeans, Manured, Double Crop	33 bu.	26	N/A
							Corn, Grain	104 bu.	46	N/A

PLAN TOTALS: 175.74 161.80

LI	Potential Leaching	Technical Guidance
< 2	Low potential to contribute to soluble nutrient leaching below the root zone.	None
>= 2 & <= 10	Moderate potential to contribute to soluble nutrient leaching below the root zone.	Nutrient Management (590) should be planned.
> 10	nutrient leaching below the root zone.	Nutrient Management (590) should be planned. Other conservation practices that improve the soils available water holding capacity and improve nutrient use efficiency should be considered. Examples are Cover Crops (340) to scavenge nutrients, Sod-Based Rotations (328), Long-Term No-Till (778), and edge-of-field practices such as Filter Strips (393) and Riparian Forest Buffers (391).

PLAT Index	Rating	P Management Recommendation	
0 - 25	Low	No adjustment needed; N based application	
25 - 50	Medium	No adjustment needed; N based application	
51 - 100	High	Application limited to crop P removal	
> 100	Very High	Starter P application only	

Preview

Database Version 3.1

Date Printed 7/2/2012

PCS Page 2 of 2

cropland needed to use the nutrients being produced. The plan requires consideration of the realistic yields of the crops to be grown, their nutrient requirements, The Waste Utilization table shown below summarizes the waste utilization plan for this operation. This plan provides an estimate of the number of acres of and proper timing of applications to maximize nutrient uptake.

other by-products, commercial fertilizer and residual from previous crops. An estimate of the quantity of solid and liquid waste that will be applied on each field in This table provides an estimate of the amount of nitrogen required by the crop being grown and an estimate of the nitrogen amount being supplied by manure or order to supply the indicated quantity of nitrogen from each source is also included. A balance of the total manure produced and the total manure applied is included in the table to ensure that the plan adequately provides for the utilization of the manure generated by the operation.

Waste	Waste Utilization Table	tion T	able				Year 1										
									Nitrogen PA Nutrient Req'd (ibs/A)	Comm. Fert. (Nutrient Applied (Ibs/A)	Res. [bs/A)		Manure PA Nutrient Applied (Ibs/A)	Liquid ManureA pplied (acre)	Solid Manure Applied (acre)	Liquid Manure Applied (Field)	Solid Manure Applied (Field)
Tract	Field	Source ID	Soil Series	Total Acres	Use. Acres	Crop	RYE	Applic. Period	z	Z	z	Applic. Method	Z	1000 gal/A	Tons	1000 gals	tons
10699	10	Iñ	Georgeville	8.58	8.00	8.00 Com, Grain	119 bu.	2/15-6/30	129	0	20	Broad.	109	3.38	0.00	27.04	0.00
10699	10	ī.	Georgeville	8.58	8.00	8.00 Wheat, Grain	57 bu.	9/1-4/30	110	0	0	Broad.	110	3.41	0.00	27.29	0.00
10699	11	In	Georgeville	10.39	10.00	10.00 Wheat, Grain	57 bu.	9/1-4/30	110	0	0	Broad.	0	3	(8)	(8)	
10699		ΙŊ	Georgeville	10.39	10.00	10.00 Soybeans, Manured, Double Crop	40 bu.	4/1-9/15	155	0	0	Broad.	110	3.41	00.0	34.12	0.00
1226	-	II	Tatum	12.59	12.50	12.50 Wheat, Grain	51 bu.	9/1-4/30	86	0	0	Broad.	0	(3)	6	8	6
1226	-	II	Tatum	12.59	12.50	12.50 Soybeans, Manured, Double Crop	35 bu.	4/1-9/15	135	0	0	Broad.	001	3.10	9.0	38.77	0.0
1226	2	15	Tatum	2.51	2.50	2.50 Corn, Grain	110 bu.	2/15-6/30	611	0	20	Broad.	8	3.07	00.0	7.68	0.00
1226	2	ΩĬ	Tatum	2.51	2.50	2.50 Wheat, Grain	51 bu.	9/1-4/30	86	0	0	Broad.	86	3.04	0.0	7.60	000
1768	1	U2	Tatum	36.65	34.50	34.50 Wheat, Grain	52 bu.	9/1-4/30	100	0	0	lmig.	0	(8)	(8)	(8)	(8
1768	-	UZ	Tatum	36.65	34.50	34.50 Soybeans, Manured, Double Crop	36 bu.	4/1-9/15	139	0	0	(F)	100	28.33	98.0	977.36	000
1768	2	In	Georgeville	6.80	6.00	6.00 Corn, Grain	119 bu.	2/15-6/30	129	0	20	Broad.	109	3.38	0.00	20.28	000
1768	2	5	Georgeville	6.80	6.00	6.00 Wheat, Grain	57 bu.	9/1-4/30	110	0	0	Broad.	110	3.41	00.0	20.47	0
1768	3	UZ	Таттиз	27.00	21.30	21.30 Com, Grain	114 bu.	2/15-6/30	123	0	0	Imig.	123	34.85	800	742.20	000
1768	ю	D2	Tarrus	27.00	21.30	21.30 Wheat, Grain	52 bu.	9/1-4/30	100	0	•	[rrig.]	8	28.33	00.0	603.41	0.00
1769	-	UZ	Georgeville	22.90	22.00	22.00 Corn, Grain	119 bu.	2/15-6/30	129	0	20	Broad.	601	33.56	00.0	738.41	0.00
1769	-	ī.	Georgeville	22.90	22.00	22.00 Wheat, Grain	57 bu.	9/1-4/30	110	0	0	Broad.	110	3.41	0.00	75.05	0.00

Waste	Waste Utilization Table	tion T	able				Year 1							•			
									Nitrogen Comm. PA Fert. Nutrient Nutrient Req'd Applied (lbs/A) (lbs/A)		Res. (lbs/A)		Manure PA [1] Nutrient Applied ([bs/A)	Liquid Solid ManureA Manure pplied Applied (acre) (acre)	Solid Manure Applied (acre)	Liquid Manure Applied (Field)	Solid Manure Applied (Field)
Tract	Field	Source ID	Soil Series	Total Acres	Use. Acres	Crop	RYE	Applic. Period	Z	z	Z	Applic. Method	z	1000 gal/A	Tons	1000 gals	tons
6033	-	ZN	Badin	8.86		8.00 Com, Grain	110 bu.	2/15-6/30	611	0	20	Broad.	66	30.49	0.00	243.88	0.00
6033	-	Z	Badin	8.86	i	8.00 Wheat, Grain	51 bu.	9/1-4/30	86	0	0	Broad.	86	30.18	0.00	241.41	0.00
6033	2	5	Badin	5.98	ı	5.00 Wheat, Grain	51 bu.	9/1-4/30	86	0	0	Broad.	(a)	0.00	E.	(G)	0.00
6033	2	ī.	Badin	5.98		5.00 Soybeans, Manured, Double Crop	35 bu.	4/1-9/15	135	0	0	Broad.	135	4.19	0.00	20.93	0.00
6033	ъ	72	Badin	33.48		32.00 Wheat, Grain	48 bu.	9/1-4/30	93	0	0	Broad.	(e)		(0.00)	(B)	0.00
6033	3	UZ	Badin	33.48		32.00 Soybeans, Manured, Double Crop	33 bu.	4/1-9/15	128	0	0	Broad.	128	39.41	0.00	1,261.26	0.00
												Ľ	otal Appl	Total Applied, 1000 gallons	gallons	5,087.15	
												Tot	tal Produc	Total Produced, 1000 gallons	gallons	2,356.90	
													Balar	Balance, 1000 gallons	gallons	-2,730.25	
													Tc	Total Applied, tons	ed, tons		0.00
													Tot	Total Produced, tons	ed, tons		0.00
														Balan	Balance, tons	-	0.00

2. Symbol * means user entered data. Notes: 1. In the tract column, \sim symbol means leased, otherwise, owned.

Wast	Waste Utilization Table	ation T	Table				Year 2										
		· .						· .	Nitrogen PA Nutrient Req'd (lbs/A)	Comm. Fert. Nutrient Applied (lbs/A)	Res. (lbs/A)		Manure PA M Nutrient Applied (lbs/A)	Liquid ManureA pplied // (acre)	Solid Manure Applied (acre)	Liquid Manure Applied (Field)	Solid Manure Applied (Field)
Tract	Field	Source	· Soil Series	Total Acres	Use. Acres	Crop	RYE	Applic. Period	N	Z,	Z	Applic. Method	z	1000 gal/A	Tons	1000 gals	tons
10699	10	5	Georgeville	8.58		8.00 Wheat, Grain	57 bu.	9/1-4/30	110	0	0	Broad.	(000	<u> </u>	(8)	
10699	10	15	Georgeville	8.58		8.00 Soybeans, Manured, Double Crop	40 bu.	4/1-9/15	155	0	0	Broad.	2	2 5	2		
10699	П	ī	Georgeville	10.39	.	10.00 Corn, Grain	119 bu.	2/15-6/30	129	0	20	Broad.	601	338	3	22 01	0.00
1226	-	Ι'n	Tatum	12.59	[12.50 Corn, Grain	110 bu.	2/15-6/30	119	0	80	Broad	8	3 6	3 8	20.01	0.00
1226	2	In	Tatum	2.51	2.50	2.50 Wheat, Grain	51 bu.	9/1-4/30	86	0	T -	Broad	6	(8)	3 6	87.80	0.00
1226	2	In	Tatum	2.51	2.50	2.50 Soybeans, Manured, Double Crop	35 bu.	4/1-9/15	135	0	0	Broad.	100	2	3) 8	3 (
1768	-	CZ	Tatum	36.65	34.50	34.50 Wheat, Grain	52 bu.	9/1-4/30	100	0	1	Trio	2 2	20.20	3 8	C/',	00.00
1768	-	n2	Tatum	36.65	34.50	34.50 Com, Grain	114 bu.	2/15-6/30	123	0	1	Broad	3 2	20.33	3 8	977.36	0.00
1768	2	5	Georgeville	6.80	6.00	6.00 Wheat, Grain	57 bu.	9/1-4/30	110	c	+-	Broad		2 (2	3 (1,062.34	0.00
1768	2	5	Georgeville	6.80	6.00	6.00 Soybeans, Manured, Double Crop	40 bu.	4/1-9/15	155	0	 	Prosed I	} :				
1768	3	UZ	Tarrus	27.00	21.30	21.30 Wheat, Grain	52 bu.	9/1-4/30	8		十	i con		2.48	000	14.89	0.00
1768	3	UZ	Tarrus	27.00	21.30	21.30 Soybeans, Manured, Double Crop	36 hi	4/1-0/15	2 2	, ,	╁	<u>i</u>	1	00:00	0.00	0.0	0.00
1769	1	UI C	Georgeville	22.90	22.00		57 bu	0/1 7/20	5	>		litrig.		28.33	00.0	603.41	0.00
1769	-	1.1.	Georgeville	22.90	22.00	22.00 Soybeans, Manured, Double Cron	40 hr	21/01/4	01.	> (\top	Broad.	0	00.0	00:00	0.00	0.00
6033	-	UZ	Badin	8.86	8.00		10 04:	C1/6-1/4	6	- -	\top	Broad.	155	18.4	00.00	105.76	0.00
6033	-1	U2	Badin	8.86	8.00	8.00 Sovbeans Manured Double Cron	30 Du	9/1-4/30	8		0	Broad.	3	3	(8)		(8)
6033	,	=	Radin	90	1	,	35 bu.	4/1-9/15	135	0	0	Broad.	135	41.57	0.00	332.56	0.00
6033	,			0.70	2.00.0	5.00 Com, Grain	110 bu.	2/15-6/30	119	0	20 B	Broad.	66	3.07	0.00	15.35	00.0
3 8		\neg	Badın	33.48	32.00	32.00 Wheat, Grain	48 bu.	9/1-4/30	93	0	- <u>B</u>	Broad.	93	28.64	0.00	916.39	000
0033	2	UZ E	Badin	33.48	32.00K	32.00 Com, Grain	104 bu.	2/15-6/30	112	0	20 Br	Broad.	6	28 33	2	1 2	
										1	7		1	100.03	n:nn	906.53	0.00

Waste Utilization Table

		-		Т	T	8	8	ğ
	Solid Manure Applied (Field)	tons				0.00	0.00	0.00
	Liquid Manure Applied (Field)	1000 gals	5,039.33	2,540.47	-2,498.87		N.,	
	Solid Manure Applied (acre)	Tons	gallons	gallons	gallons	ed, tons	ed, tons	Balance, tons
	Liquid ManureA pplied (acre)	1000 gal/A	ied, 1000	ced, 1000	Balance, 1000 gallons	Total Applied, tons	Total Produced, tons	Balan
	Manure PA R Nutrient Applied (lbs/A)	Z	Total Applied, 1000 gallons	Total Produced, 1000 gallons	Bala	T	Tot	
		Applic. Method	L	To				
	Res. (lbs/A)	Z						
		Z						
	Nitrogen Comm. PA Fert. Nutrient Nutrient Red'd Applied (lbs/A) (lbs/A)	Z						
	"	Applic. Period						
Year 2		RYE						
,	·	Сгор						
		Use. Acres		į				
		Total						
ble		Soil Series						
tion Ta		Source			ľ		ł	
Waste Utilization Table		Field						
Waste		Tract						

Waste Utilization Table

2. Symbol * means user entered data. Notes: 1. In the tract column, ~ symbol means leased, otherwise, owned.

The Irrigation Application Factors for each field in this plan are shown in the following table. Infiltration rate varies with soils. If applying waste nutrients through an irrigation system, you must apply at a rate that will not result in runoff. This table provides the maximum application rate per hour that may be applied to each field selected to receive wastewater. It also lists the maximum application amount that each field may receive in any one application event.

Irrigation Application Factors

Tract	Field	Soil Series	Application Rate (inches/hour)	Application Amount (inches)
1768	1	Tatum	0.40	1.0
1768	3	Tarrus	0.40	1.0

NOTE: Symbol * means user entered data.

The Nutrient Management Recommendations table shown below provides an annual summary of the nutrient management plan developed for this operation. This table provides a nutrient balance for the listed fields and crops for each year of the plan. Required nutrients are based on the realistic yields of the crops to be grown, their nutrient requirements and soil test results. The quantity of nutrient supplied by each source is also identified.

The total quantity of nitrogen applied to each crop should not exceed the required amount. However, the quantity of other nutrients applied may exceed their required amounts. This most commonly occurs when manure or other byproducts are utilized to meet the nitrogen needs of the crop. Nutrient management plans may require that the application of animal waste be limited so as to prevent over application of phosphorous when excessive levels of this nutrient are detected in a field. In such situations, additional nitrogen applications from nonorganic sources may be required to supply the recommended amounts of nitrogen.

Nutrient Management Recommendations Test

Y	EAR	,	0		N (lbs/A)	P2O5 (lbs/A)	K2O (lbs/A)	Mg (lbs/A)	Mn (lbs/A)	Zn (lbs/A)	Cu (lbs/A)	Lime (tons/A)
Tract	Field	10699	11	Req'd Nutrients	110	0	0	0	0	0	0	0
Acres	App. Perio	1 10.00	9/1-4/30	Supplied By:								v . **
	CROP	Wheat, Grain	า	Starter	0	0	0	0	0	0	0	0
				Commercial Fert.	0	0	0	0	0	0	0	0
S	oil Series	Georgeville		Residual	0	0	0	0	0	0	0	0
RYE	Sample Dat	57 bu.	05-11-12	Manure	110	190	41	108	4	. 0	5	0
P Remo	oval Rating	g 29 lbs/ac.	Medium	BALANCE	0	190	41	108	4	0	5	0
Tract	Field	1226	1	Req'd Nutrients	98	0	0	0	0	0	0	0
Acres	App. Perio	12.50	9/1-4/30	Supplied By:								
	CROP	Wheat, Grain	1	Starter	0	0	0	0	0-	0	0	. 0
		•		Commercial Fert.	0	0	0	0	0	0	0	0
S	oil Series	Tatum		Residual	20	0	. 0	0	0	0	0	0
RYE	Sample Date	51 bu.	05-10-12	Manure	78	135	29	77	3	0	3	0
P Remo	oval Rating	26 lbs/ac.	Medium	BALANCE	0	135	29	77	3	0	3	0
Tract	Field	1768	l	Req'd Nutrients	100	0	0	0	0	0	0	0
Acres	App. Period	34.50	9/1-4/30	Supplied By:								
	CROP	Wheat, Grain	l	Starter	0	0	0	0	0	0	0	0
				Commercial Fert.	0	0	0	0	0	0	0	0
S	oil Series	Tatum		Residual	0	0	0	0	0	0	0	0
RYE :	Sample Date	52 bu.	05-10-12	Manure	100	61	263	25	1	4	1	0
P Remo	oval Rating	26 lbs/ac.	Medium	BALANCE	0	61	263	25	1	4	1	0
Tract	Field	6033	3	Req'd Nutrients	93	0	0	0	0	. 0	0	0
Acres	App. Period	32.00	9/1-4/30	Supplied By:			,		•			
	CROP	Wheat, Grain		Starter	0	0	0	0	0	0	0	0
				Commercial Fert.	0	0	0	0	0	0	0	0
S	oil Series	Badin		Residual	0	0	0	0	0	0	0	0
RYE S	Sample Date	48 bu.	05-14-12	Manure	93	61	266	25	1	4	1	0
P Remo	val Rating	24 lbs/ac.	Unknown	BALANCE	0	61	266	25	1	4	1	0

263445 Database Version 3.1 Date Printed: 6/21/2012 NMR Page 1 of 8

YEAR 0	N (lbs/A)	P2O5 (lbs/A)	K2O (lbs/A)	Mg (lbs/A)	Mn (lbs/A)	Zn (lbs/A)	Cu (lbs/A)	Lime (tons/A)
--------	--------------	-----------------	----------------	---------------	---------------	---------------	------------	------------------

NOTE: Symbol * means user entered data.

,	YEA	AR		1		N (lbs/A)	P2O5 (lbs/A)	K2O (lbs/A)	Mg (lbs/A)	Mn (lbs/A)	Zn (lbs/A)	Cu (lbs/A)	Lime (tons/A)
Tra	ct	Field	10699	10	Req'd Nutrients	129	0	0	0	0	<u> </u>	0.	0
Acres	s Ap	p. Period	8.00	2/15-6/30	Supplied By:								
			Corn, Grain		Starter	0	0	0	0	0	0	0	0
					Commercial Fert.	0	0	0	0	0	0	0	0
	Soil	Series	Georgeville		Residual	20	0	0	0	0	0	0	0
RYE	Sam	ple Date	119 bu.	05-11-12	Manure	109	188	41	107	4	0	5	0
P Ren	noval	Rating	52 lbs/ac.	Medium	BALANCE	0	188	41	107	4	0	5	. 0
Trac	ct	Field	10699	10	Req'd Nutrients	110	0	0	0	0	0	0	0
Acres	App	o. Period	8.00	9/1-4/30	Supplied By:	:							
		CROP	Wheat, Grain	1	Starter	0	0	0	0	0	. 0	0	0
					Commercial Fert.	0	0	0	0	0	0	0	0
	Soil	Series	Georgeville		Residual	0	0	0	0	0	0	0	0
RYE	Sam	ple Date	57 bu.	05-11-12	Manure	110	190	41	108	4	0	5	0
P Ren	noval	Rating	29 lbs/ac.	Medium	BALANCE	0	190	41	108	4	0	5	0
Trac	et	Field	10699	11	Req'd Nutrients	155	0	0	. 0	0	0	0	0
Acres	App	. Period	10.00	4/1-9/15	Supplied By:								
	(CROP	Soybeans, M		Starter	0	0	0	0	0	0	0	0
			Double Crop		Commercial Fert.	0	0	0	0	0	0	0	0
	Soil	Series	Georgeville		Residual	0	0	0	0	0	0	0	0
RYE	Sam	ple Date	40 bu.	05-11-12	Manure	110	190	41	108	4	0	5	0
P Ren	ioval	Rating	32 lbs/ac.	Medium	BALANCE	-45	190	41	108	4	0	. 5	0
Trac	t .	Field	1226	l	Req'd Nutrients	135	0	0	0	0	0	0	0
Acres	App	. Period	12.50	4/1-9/15	Supplied By:	**							
	(CROP	Soybeans, M		Starter	0	0	0	0	0	0	0	0-
	•		Double Crop		Commercial Fert.	0	0	0	0	0	0	0	0
:	Soil	Series	Tatum		Residual	0	0	0	0	0	0	0	0
		ple Date	35 bu.	05-10-12	Manure	100	173	38	99	3	0	4	0
P Ren	ioval	Rating	28 lbs/ac.	Medium	BALANCE	-35	173	38	99	3	0	4	0
Trac	t	Field	1226	2	Req'd Nutrients	119	0	0	0	0	0	0	0
Acres	App	. Period	2.50	2/15-6/30	Supplied By:								
	(CROP	Corn, Grain		Starter	0	. 0	0	0	0	0	0	0:
					Commercial Fert.	0	0	0	0	0	0	0	0
		Series	Tatum		Residual	20	0	0	0	0	0	0	0
		ole Date	110 bu.	05-10-12	Manure	99	171	37	98	3	0 .	4	0
P Rem	ioval	Rating	48 lbs/ac.	Medium	BALANCE	0	171	37	98	3	0	4	0

	YEA	\R		1		N	P2O5	K2O	Mg	Mn	Zn	Cu	Lime
_	. T		1007	1 .	5 1137 1	(lbs/A)	(lbs/A)	(lbs/A)	(lbs/A)	(lbs/A)	(lbs/A)	(lbs/A)	(tons/A)
Trac		Field	1226	2	Req'd Nutrients	98	0	0	. 0	0	0	0	· ·
Acres	*	o. Period	•	9/1-4/30	Supplied By:							0	
	(CROP	Wheat, Grain	n	Starter	0	0	0	0	0	0	0	0
					Commercial Fert.	0		0	0	0	0	0	0
		Series			Residual	0	0	. 0	0	0	0	0	0
		ple Date	<u></u>	05-10-12	Manure	98	169	.37	97	3	0	4	- 0
P Ren	ioval	Rating	26 lbs/ac.	Medium	BALANCE	0	169	37	97	. 3	0	4	0
Trac	:t	Field	1768	1	Req'd Nutrients	139	0	0	0	0	0	0	0
Acres	Арр	. Period	34.50	4/1-9/15	Supplied By:								
	(CROP	Soybeans, M		Starter	0	0	0	0	0	0	0	0
l			Double Crop	•	Commercial Fert.	0	0	0	0	0	0	0	0
	Soil	Series	Tatum		Residual	0	0	0	0	0	0	0	0
RYE	Sam	ple Date	36 bu.	05-10-12	Manure	100	61	263	25	1	4	1	. 0
P Rem	ioval	Rating	29 lbs/ac.	Medium	BALANCE	-39	61	263	25	1	4	1	0
Trac	t	Field	1768	2	Req'd Nutrients	- 110	0	0	0	0	0	0	0
Acres	App	. Period	6.00	9/1-4/30	Supplied By:			· · · · · · · · · · · · · · · · · · ·					
		CROP	Wheat, Grain	<u></u>	Starter	0	0	0	0	0	. 0	0	0
					Commercial Fert.	0	0	0	0	0	0	0	. 0
	Soil	Series	Georgeville		Residual	0	0	0	0	0	0	0	0
RYE	Samp	ple Date	57 bu.	05-11-12	Manure	110	190	41	108	4	0	5	0
P Rem	ioval	Rating	29 lbs/ac.	Medium	BALANCE	0	190	41	108	4	0	5	0
Trac	t	Field	1768	2	Req'd Nutrients	129	0	0	0	0	0	0	0
Acres	App	. Period	6.00	2/15-6/30	Supplied By:			:					
			Corn, Grain		Starter	0	0	0	ō	0	0	0	0
	`	JIC 1			Commercial Fert.	0	0	0	0	0	0	0	0
	Soil :	Series	Georgeville		Residual	20	0	0	0	0	0	0	0
		ole Date	119 bu.	05-11-12	Manure	109	188	41	107	4	0	5	0
P Rem	oval	Rating	52 lbs/ac.	Medium	BALANCE	0	188	41	107	4	Ó	5	0
Trac	t T	Field	1768	3	Req'd Nutrients	123	0	0	0	0	0	0	0
		. Period		2/15-6/30	Supplied By:					ŀ			
			Corn, Grain	L	Starter	0	0	0	0	0	0	0	0
		·	,		Commercial Fert.	0	0	0	0	0	0.	0	0
<u> </u>	Soil S	Series	Tarrus		Residual	0	0	0	0	0	0	0	0
		ole Date	114 bu,	05-11-12	Manure	123	75	323	31	1	5	2	0
		Rating	-	Medium	BALANCE	0	75	323	31	1	5	2	0
L										L			

263445 Database Version 3.1 Date Printed: 6/21/2012 NMR Page 4 of 8

									'		, 		
	YEA	AR		1		N (lbs/A)	P2O5 (lbs/A)	K2O (lbs/A)	Mg (lbs/A)	Mn (lbs/A)	Zn (lbs/A)	Cu (lbs/A)	Lime (tons/A)
Trac	ct	Field	1768	3	Req'd Nutrients	100	0	0	0	0	0	0	
Acres	s App	p. Period	1 21.30	9/1-4/30	Supplied By:			:-			1	,	-
		CROP	Wheat, Gra	in	Starter	0	0	0	0	0	0	0	- (
<u></u>					Commercial Fert.	0	0	0	0	0	0	0	(
-	_	Series		·-	Residual	0	0	0	0	0	0	0	(
-		ple Date		05-11-12	Manure	100	61	263	25	1	4	1	(
P Rem	noval	Rating	26 lbs/ac.	Medium	BALANCE	0	61	263	25	1	4	Ĩ	(
Trac	et	Field	1769	I	Req'd Nutrients	110	0	0	0	0	0	0	
Acres	App	. Period	22.00	9/1-4/30	Supplied By:				· · ·				· · · · · · · · · · · · · · · · · · ·
	(CROP	Wheat, Grai	n	Starter	0	0	0	0	0	0	0	0
<u> </u>					Commercial Fert.	0	0	0	0	0	0	0	0
			Georgeville		Residual	0	0	0	0	ō	0	0	0
┸		ple Date		05-11-12	Manure	110	190	41	108	- 4	0	5	0
P Rem	ioval	Rating	29 lbs/ac.	Low	BALANCE	0	190	41	108	4	0	5	0
Tract	t	Field	1769	1	Req'd Nutrients	129	0	0	0	0	0	0	0
Acres	App	. Period	22.00	2/15-6/30	Supplied By:						_		
l	(CROP	Corn, Grain		Starter	0	0	0	0	0	0	0	0
<u> </u>					Commercial Fert.	0	0	0	0	0	0	0	0
			Georgeville	,	Residual	20	0	0	0	0	0	0	- 0
		le Date	119 bu.	05-11-12	Manure	109	72	312	30	1	5	i	0:
P Remo	oval	Rating	52 lbs/ac.	Low	BALANCE	0	. 72	312	30	1	5	1	0
Tract	<u> </u>	Field	6033	1	Req'd Nutrients	119	0	0	0	0	0	0	0
Acres	Арр.	Period	8.00	2/15-6/30	Supplied By:								
1	C	ROP	Corn, Grain		Starter	0	0	0	0	0	0	0	
			<u> </u>		Commercial Fert.	0	0	0	0	0	0	0	0
		eries	Badin		Residual	20	0	0	0	0	0	0	0
RYE S			110 bu.	05-14-12	Manure	99	65	283	27	1	4	1	0
P Remo	oval	Rating	48 lbs/ac.	Unknown	BALANCE	0	65	283	27	1	4	1	0
Tract]	Field	6033	1	Req'd Nutrients	98	0	0	0	0	0	0	0
Acres	App.	Period	8.00	9/1-4/30	Supplied By:					-			
	C	ROP	Wheat, Grain		Starter	0	0	0	0	0	0	0	0
			· · ·		Commercial Fert.	0	0	0	0	0	. 0	0	0
		eries I			Residual	0	0	0	0	0	0	0	0
RYE S			51 bu.	05-14-12	Manure	98	65	280	27	1	4	ı	0
P Remo	val I	Rating	26 lbs/ac.	Unknown	BALANCE	0	65	280	27	1	4	1	0

7	YEAR		1		N (lbs/A)	P2O5 (lbs/A)	K2O (lbs/A)	Mg (lbs/A)	Mn (lbs/A)	Zn (lbs/A)	Cu (lbs/A)	Lime (tons/A)
Trac	t Field	6033	3	Req'd Nutrients	128	0	0	0	0	0	0	0
Acres	App. Period	32.00	4/1-9/15	Supplied By:		,						1
	CROP	Soybeans, M	lanured,	Starter	0	0	0	0	0	0	0	0
		Double Crop	•	Commercial Fert.	0	0	0	0	0	0	0	0
	Soil Series	Badin	·	Residual	0	0	0	0	0	0	0	0
RYE	Sample Date	33 bu.	05-14-12	Manure	128	84	366	35	1	. 6	2	0
P Rem	noval Rating	26 lbs/ac.	Unknown	BALANCE	0	84	366	35	1	6	2	. 0

NOTE: Symbol * means user entered data.

				7								
Y	EAR		2		N (lbs/A)	P2O5 (lbs/A)	K2O (lbs/A)	Mg (lbs/A)	Mn (lbs/A)	Zn (lbs/A)	Cu (lbs/A)	Lime (tons/A)
Tract	Field	10699	10	Req'd Nutrients	155	0	0	0	0	0	0	C
Acres	App. Period	8.00	4/1-9/15	Supplied By:								
	CROP	Soybeans, M	lanured,	Starter	0	0	0	0	0	0	0	0
		Double Crop) 	Commercial Fert.	0	0	0	0	0	0	0	0
S	oil Series	Georgeville		Residual	0	0	0	0	0	0	0	0
	Sample Date	1	05-11-12	Manure	100	173	38	99	3	0	4	0
P Remo	oval Rating	32 lbs/ac.	Medium	BALANCE	-55	173	38	99	3	0	4	0
Tract	Field	10699	11	Req'd Nutrients	129	0	0	0	0	0	0	0
Acres	App. Period	10.00	2/15-6/30	Supplied By:								i d
	CROP	Corn, Grain		Starter	0.	0	0	0	0	0	0	0
				Commercial Fert.	0	0	0	0	0	0	0	0
S	oil Series	Georgeville		Residual	20	0	0	0	0	0	0	0
RYE S	Sample Date	119 bu.	05-11-12	Manure	109	188	41	107	4	0	5	. 0
P Remo	val Rating	52 lbs/ac.	Medium	BALANCE	0	188	41	107	4	0	5	0
Tract	Field	1226	1	Req'd Nutrients	119	0	0	ō	0	0	0	0
Acres	App. Period	12.50	2/15-6/30	Supplied By:								
	CROP	Corn, Grain		Starter	0	0	0	0	0	0	0	0
				Commercial Fert.	0	0	0	0	0	0	0	0
S	oil Series	Tatum		Residual	20	0	0	0	. 0	0	0	0
RYE S	Sample Date	110 bu.	05-10-12	Manure	99	171	37	98	3	0	4	0
Remo	val Rating	48 lbs/ac.	Medium	BALANCE	0	171	37	98	3	0	4	0
Tract	Field	1226	2	Req'd Nutrients	135	0	0	0	0	0	0	0
Acres .	App. Period	2.50	4/1-9/15	Supplied By:								-
	CROP	Soybeans, M		Starter	0	0	0	0	0	0	0	0
		Double Crop		Commercial Fert.	0	0	0	0	0	0	0	0
So	oil Series	Tatum		Residual	0	0	0	0	0	0	0	0
RYE S	ample Date	35 bu.	05-10-12	Manure	100	173	38	99	3	0	4	0
Remo	val Rating	28 lbs/ac.	Medium	BALANCE	-35	173	38	99	3	0	4	0
Tract	Field	1768	I	Req'd Nutrients	123	0	0	0	0	0	0	0
Acres	App. Period	34.50	2/15-6/30	Supplied By:								
	CROP	Corn, Grain		Starter	0	0	0	0	0	0	0	0
		1		Commercial Fert.	0	0	0	0	0	0	0	0
Sc	oil Series	Tatum		Residual	20	0	0	0	0	. 0	0	0
₹YE S	ample Date	114 bu.	05-10-12	Manure	100	66	286	27	1	4	1	0
	val Rating	50 lbs/ac.	Medium	BALANCE	-3	66	286	27		4.	+	

. ,	YEA	AR		2		N (lbs/A)	P2O5 (lbs/A)	K2O (lbs/A)	Mg (lbs/A)	Mn (lbs/A)	Zn (lbs/A)	Cu (lbs/A)	Lime (tons/A)
Tra	ict	Field	1768	2	Req'd Nutrients	155	0	. 0	0	0	. 0	0	0
Acre	s Ap	p. Period	6.00	4/1-9/15	Supplied By:			*					
		CROP	Soybeans, M		Starter	0	0	0	0	. 0	0	0	0
			Double Crop		Commercial Fert.	0	0	0	0	0	0	0	0
	Soil	Series	Georgeville		Residual	0	0	0	0	0	0	. 0	0
RYE	Sam	ple Date	40 bu.	05-11-12	Manure	80	138	30	79	3	0	4	0
P Ren	moval	Rating	32 lbs/ac.	Medium	BALANCE	-75	138	30	79	3	0	4	0
Tra	ct	Field	1768	3	Req'd Nutrients	139	0	0	0	0	0	0	. 0
Acre	s App	p. Period	21.30	4/1-9/15	Supplied By:								
	1	CROP	Soybeans, M		Starter	0	0	0	0	0	0	0	0
			Double Crop		Commercial Fert.	0	0	0	0	0	0	0	0
	Soil	Series	Tarrus		Residual	. 0	0	0	0	0	0	0	0
L		ple Date	36 bu.	05-11-12	Manure	100	61	263	25	1	4	1	0
P Rer	noval	Rating	29 lbs/ac.	Medium	BALANCE	-39	61	263	25	1	4	1	0
Tra	ct	Field	1769	1	Req'd Nutrients	155	0	0	0	0	0	0	0
Acre	s App	o. Period	22.00	4/1-9/15	Supplied By:								
	(CROP	Soybeans, M		Starter	0	0	0	0	0	. 0	0	0.
			Double Crop		Commercial Fert.	0	0	0	0	0	0	0	0
	Soil	Series	Georgeville		Residual	0	0	0	0	0	0	0	0
RYE	Sam	ple Date	40 bu.	05-11-12	Manure	155	267	58	153	5	0	7	0
P Ren	noval	Rating	32 lbs/ac.	Low	BALANCE	.0	. 267	58	153	5	0	7	. 0
Trac	ct	Field	6033	1	Req'd Nutrients	135	0	0	0	0	0	0	0
Acres	s App	o. Period	8.00	4/1-9/15	Supplied By:			(70.700)					:
	(CROP	Soybeans, M	anured,	Starter	0	0	. 0	0	0	0	0	0
			Double Crop		Commercial Fert.	. 0	0	0	0	. 0	0	0	0
	Soil	Series	Badin		Residual	0	0	0	0	0	0	0	0
RYE	Sam	ple Date	35 bu.	05-14-12	Manure	135	89	386	37	1	6	2	0
P Ren	noval	Rating	28 lbs/ac.	Unknown	BALANCE	0	89	386	37	1	6	2	0
Trac	ct	Field	6033	3	Req'd Nutrients	112	0	0	. 0	0	0	0	0
Acres	s App	. Period	32.00	2/15-6/30	Supplied By:				·				
	(CROP	Corn, Grain		Starter	0	0	0	0	0	0	0	0
<u> </u>					Commercial Fert.	0	0	0	0	0	0	0	0
	Soil	Series	Badin		Residual	20	0	0	0	0	0	0	0
		ple Date	104 bu.	05-14-12	Manure	92	61	263	25	1	4.	1	0
P Ren	noval	Rating	46 lbs/ac.	Unknown	BALANCE	0	61	263	25	1	4	1	0

NOTE: Symbol * means user entered data.

can adversely affect plant growth. Alternative crop sites must be used when the concentration of these metals approach excessive levels. Site life can be estimated by dividing the amount of copper and zinc to be applied in lbs/acre by 0.036 and 0.071, respectively and multiplying the result by 0.85. excessive levels of copper or zinc. Fields that receive manure must have an annual soil analysis for these elements. High levels of zinc and copper The Required Soil Test Values shown in the following table provide a summary of recommended actions that should be taken if soil tests indicate By adding this quantity to the current soil index for copper or zinc, we can predict life of the site for waste disposal. In addition to copper and zinc indices, this table also provides a summary of lime recommendations for each crop based on the most recent soil sample. Application of lime at recommended rates is necessary to maintain soil pH in the optimum range for crop production.

Required Soil Test Values

_			_	_			_				_	_	_	_	_	_											
	Zinc Recommendation	ı	None	None	None	None	None	Volte	Hone	None	None	None	None	None	None	July Property of the Property	None	None	None	None	None	None	None	2101	None	None	None
	Zn-I	1	Т	300	300	1 209		Т	Т	Т	Т	880	784	784	Τ	Т	Т	┰	1051	\$	643	643 N	Г	T	367 IN	367 N	323 N
	Copper Recommendation	None	None	HOUSE	None	None	None	None	None	None	None	200	None	None	None	None	A CON	None		Noire	None	None	None	None	Comp.	DIGNI	None
	Cu-I	149	T		149	201	201	Т	Т	T	Ţ	Τ	T	233	233	437	437	Τ	1	1	十	248 N	205 N	20%	7	T	191
I ime Recom	(tons/acre)	0.0	00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00	0.00	0.0	0.0	0.0	0.0	0.0	00	000	0.0	0.0	0.0	0.0	0.0	00	?; ;	0.0
	μď	0.9	6.0		0.0	0.9	6.0	6.0	6.1	6,1	6	Ţ		6.1	6.1	6.2	6.2	6.2	6,3	6.3	Ç Ç	5	0.9	0.9	0.9		7.0
	Crop	Com, Grain	Wheat, Grain	Southeans Manured Double Cron	and comes, reminister, Donote Ctop	Wheat, Grain	Soybeans, Manured, Double Crop	Com, Grain	Wheat, Grain	Soybeans, Manured, Double Crop	Com, Grain	Com, Grain	n	wneat, Orain	Soybeans, Manured, Double Crop	Wheat, Grain	Soybeans, Manured, Double Crop	Com, Grain	Corn, Grain	Wheat Grain	Southeans Montread Double Con-	Soy ocais, ivialinica, Donoie Crop	Corn, Grain	Wheat, Grain	Soybeans, Manured, Double Crop	Com Grain	Comb Cream
	Field	10	10	٤	Т	=	=	11	-		-	2	Γ	Т	7	-	1	_	2	7		Т		3	3	-	
	Tract	10699	10699	10690	0000	10699	10699	10699	.1226	1226	1226	1226	1226	1777	1226	1768	1768	1768	1768	1768	1768	3 2	8/1	1768	1768	1769	

		mmendation Zn-I Zinc Recommendation	222 None	Т	323 None	326 None				326 None	326 None	
		Copper Recommendation	None	None		None	None	Т		T	None	None
		-T-00	161	191	Ĺ	191	191		1		191	191
	Lime Recom.	(tons/acre)	0.0	0.0		0.0	0.0	0.0	0.0	O'O	0.0	0.0
		bΗ	6.2	6.2	,	0.0	6.0	6.0	0.9	2	6.0	0.9
Required Soil Test Values	ł	Crop	Wheat, Grain	Soybeans, Manured, Double Crop	is and	Com, Orani	Wheat, Grain	Soybeans, Manured, Double Crop	Wheat, Grain		Soybeans, Manured, Double Crop	Corn, Grain
uired ,	į	Field	1		-	1	1		60	,	7	m
Reg		Lact	1769	1769	6033		6033	6033	6033	1007	2000	6033

The following Lagoon Sludge Nitrogen Utilization table provides an estimate of the number of acres needed for sludge utilization for the indicated accumulation period. These estimates are based on average nitrogen concentrations for each source, the number of animals in the facility and the plant available nitrogen application rates shown in the second column.

Lagoon sludge contains nutrients and organic matter remaining after treatment and application of the effluent. At clean out, this material must be utilized for crop production and applied at agronomic rates. In most cases, the priority nutrient is nitrogen but other nutrients including phosphorous, copper and zinc can also be limiting. Since nutrient levels are generally very high, application of sludge must be carefully applied.

Sites must first be evaluated for their suitability for sludge application. Ideally, effluent spray fields should not be used for sludge application. If this is not possible, care should be taken not to load effluent application fields with high amounts of copper and zinc so that additional effluent cannot be applied. On sites vulnerable to surface water moving to streams and lakes, phosphorous is a concern. Soils containing very high phosphorous levels may also be a concern.

Lagoon Sludge Nitrogen Utilization Table

Crop	Maximum PA-N Rate lb/ac	Maximum Sludge Application Rate 1000 gal/ac	Minimum Acres 5 Years Accumulation	Minimum Acres 10 Years Accumulation	Minimum Acres 15 Years Accumulation	
		Swine Farro	w-Finish Lagoon Sludg	e - Standard		
Corn 120 bu	150	13.16	375.86	751.71	1,127.57	
Hay 6 ton R.Y.E.	300	26.32	187.93	375.86	563.79	
Soybean 40 bu	160	14.04	352.37	704.73	1,057.10	

263445 Database Version 3.1 Date Printed: 06-21-2012 Sludge Page 1 of 1

The Available Waste Storage Capacity table provides an estimate of the number of days of storage capacity available at the end of each month of the plan. Available storage capacity is calculated as the design storage capacity in days minus the number of days of net storage volume accumulated. The start date is a value entered by the user and is defined as the date prior to applying nutrients to the first crop in the plan at which storage volume in the lagoon or holding pond is equal to zero.

Available storage capacity should be greater than or equal to zero and less than or equal to the design storage capacity of the facility. If the available storage capacity is greater than the design storage capacity, this indicates that the plan calls for the application of nutrients that have not yet accumulated. If available storage capacity is negative, the estimated volume of accumulated waste exceeds the design storage volume of the structure. Either of these situations indicates that the planned application interval in the waste utilization plan is inconsistent with the structure's temporary storage capacity.

Available Waste Storage Capacity

Source Name	Huneycutt Pig Farm la	goon liquid	Design Storage Capacity (Days)		
Start Date	12/31		90 Available Storage Capacity (Days) *		
Pla	ın Year	Month			
	1	1	59		
	1	2	90		
	1	. 3	90		
	1	4	60_		
	1	5	29		
	11	6	90		
	1	7	59		
	11	8	90		
	1	9	90		
	11	10	90		
	1	11	90		
	1	12	59		
	2	1			
<u></u>	2	2	90		
··	2	3	90		
	2	4	60		
	2	5	90		
<u></u>	2	6	90		
	. 2	7	59		
,-	2	8	28		
	2	9	74		
	2	10	90		
	. 2	-11	60		
	2	12	29		

^{*} Available Storage Capacity is calculated as of the end of each month.

Required Specifications For Animal Waste Management

- Animal waste shall not reach surface waters of the state by runoff, drift, manmade conveyances, direct application, or direct discharge during operation or land application. Any discharge of waste that reaches surface water is prohibited.
- There must be documentation in the design folder that the producer 2. either owns or has an agreement for use of adequate land on which to properly apply the waste. If the producer does not own adequate land to properly dispose of the waste, he/she shall provide evidence of an agreement with a landowner, who is within a reasonable proximity, allowing him/her the use of the land for waste application. It is the responsibility of the owner of the waste production facility to secure an update of the Nutrient Management Plan when there is a change in the operation, increase in the number of animals, method of application, receiving crop type, or available land.
- Animal waste shall be applied to meet, but not exceed, the nitrogen needs 3. for realistic crop yields based upon soil type, available moisture, historical data, climatic conditions, and level of management, unless there are regulations that restrict the rate of applications for other nutrients.
- Animal waste shall be applied to land eroding less than 5 tons per acre 4. per year. Waste may be applied to land eroding at more than 5 tons per acre per year but less than 10 tons per acre per year provided grass filter strips are installed where runoff leaves the field (see USDA, NRCS Field Office Technical Guide Standard 393 - Filter Strips).
- Odors can be reduced by injecting the waste or by disking after waste 5. application. Waste should not be applied when there is danger of drift from the land application field.
- When animal waste is to be applied on acres subject to flooding, waste will be soil incorporated on conventionally tilled cropland. When waste is applied to conservation tilled crops or grassland, the waste may be broadcast provided the application does not occur during a season prone to flooding (see "Weather and Climate in North Carolina" for guidance).

Specification Page 1 Date Printed: 6/21/2012

263445

- 7. Liquid waste shall be applied at rates not to exceed the soil infiltration rate such that runoff does not occur offsite or to surface waters and in a method which does not cause drift from the site during application. No ponding should occur in order to control odor and flies.
- 8. Animal waste shall not be applied to saturated soils, during rainfall events, or when the soil surface is frozen.
- 9. Animal waste shall be applied on actively growing crops in such a manner that the crop is not covered with waste to a depth that would inhibit growth. The potential for salt damage from animal waste should also be considered.
- 10. Nutrients from waste shall not be applied in fall or winter for spring planted crops on soils with a high potential for leaching. Waste/nutrient loading rates on these soils should be held to a minimum and a suitable winter cover crop planted to take up released nutrients. Waste shall not be applied more than 30 days prior to planting of the crop or forages breaking dormancy.
- 11. Any new swine facility sited on or after October 1, 1995 shall comply with the following: The outer perimeter of the land area onto which waste is applied from a lagoon that is a component of a swine farm shall be at least 50 feet from any residential property boundary and canal. Animal waste, other than swine waste from facilities sited on or after October 1, 1995, shall not be applied closer that 25 feet to perennial waters.
- 12. Animal waste shall not be applied closer than 100 feet to wells.
- 13. Animal waste shall not be applied closer than 200 feet of dwellings other than those owned by the landowner.
- 14. Waste shall be applied in a manner not to reach other property and public right-of-ways.

263445 Database Version 3.1 Date Printed: 6/21/2012 Specification Page 2

- 15. Animal waste shall not be discharged into surface waters, drainageways, or wetlands by a discharge or by over-spraying. Animal waste may be applied to prior converted cropland provided the fields have been approved as a land application site by a "technical specialist". Animal waste shall not be applied on grassed waterways that discharge directly into water courses, and on other grassed waterways, waste shall be applied at agronomic rates in a manner that causes no runoff or drift from the site.
- 16. Domestic and industrial waste from washdown facilities, showers, toilets, sinks, etc., shall not be discharged into the animal waste management system.
- 17. A protective cover of appropriate vegetation will be established on all disturbed areas (lagoon embankments, berms, pipe runs, etc.). Areas shall be fenced, as necessary, to protect the vegetation. Vegetation such as trees, shrubs, and other woody species, etc., are limited to areas where considered appropriate. Lagoon areas should be kept mowed and accessible. Berms and structures should be inspected regularly for evidence of erosion, leakage, or discharge.
- 18. If animal production at the facility is to be suspended or terminated, the owner is responsible for obtaining and implementing a "closure plan" which will eliminate the possibility of an illegal discharge, pollution, and erosion.
- 19. Waste handling structures, piping, pumps, reels, etc., should be inspected on a regular basis to prevent breakdowns, leaks, and spills. A regular maintenance checklist should be kept on site.
- 20. Animal waste can be used in a rotation that includes vegetables and other crops for direct human consumption. However, if animal waste is used on crops for direct human consumption, it should only be applied pre-plant with no further applications of animal waste during the crop season.
- 21. Highly visible markers shall be installed to mark the top and bottom elevations of the temporary storage (pumping volume) of all waste treatment lagoons. Pumping shall be managed to maintain the liquid level between the markers. A marker will be required to mark the maximum storage volume for waste storage ponds.

- 22. Waste shall be tested within 60 days of utilization and soil shall be tested at least annually at crop sites where waste products are applied. Nitrogen shall be the rate-determining nutrient, unless other restrictions require waste to be applied based on other nutrients, resulting in a lower application rate than a nitrogen based rate. Zinc and copper levels in the soils shall be monitored and alternative crop sites shall be used when these metals approach excessive levels. pH shall be adjusted and maintained for optimum crop production. Soil and waste analysis records shall be kept for a minimum of five years. Poultry dry waste application records shall be maintained for a minimum of three years. Waste application records for all other waste shall be maintained for five (5) years.
- 23. Dead animals will be disposed of in a manner that meets North Carolina regulations.

263445 Database Version 3.1 Date Printed: 6/21/2012 Specification Page 4

Crop Notes

The following crop note applies to field(s): 1, 10, 11, 2, 3

Corn Piedmont

In the Piedmont, corn is normally planted when soil temperatures reach 52 to 55 degrees fahrenheit. Review the Official Variety "green book" and information from private companies to select a high yielding variety with the characteristics needed for your area and conditions. Plant 1-2" deep. Plant populations should be determined by the hybrid being planted. Increase the seeding rate by 10% when planting no-till. Phosphorus and potassium recommended by a soil test can be broadcast or banded at planting. When planting early in cool, wet soil, banded phosphorus will be more available to the young plants. An accepted practice is to apply 20-30 lbs/acre N and 20-30 lbs/acre phosphorus banded as a starter and the remaining N behind the planter. The total amount of N is dependent on soil type. When including a starter in the fertilizer program, the recommended potassium and any additional phosphorus is normally broadcast at planting. Plant samples can be analyzed during the growing season to monitor the overall nutrient status of the corn. Timely management of weeds and insects are essential for corn production.

The following crop note applies to field(s): 1, 10, 11, 2, 3

Wheat: Piedmont

In the Piedmont, wheat should be planted from October 10-November 3. Plant 22 seed/drill row foot at 1-1 1/2" deep and increase the seeding rate by 5% for each week seeding is delayed beyond the optimum time. See the seeding rates table for applicable seeding rate modifications in the current NCSU "Small Grain Production Guide". Also, increase the initial seeding rate by at least 10% when planting no-till. Adequate depth control when planting the wheat is essential. Review the NCSU Official Variety "green book" and information from private companies to select a high yielding variety with the characteristics needed for your area and conditions. Apply no more than 30 lbs/acre N at planting. Increase the N at planting to 40 lbs/acre in no-till wheat. Apply phosphorus and potash according to soil test recommendations at this time. The remaining N should be applied during the months of February-March. The total N is dependent on the soil type. Plant samples can be analyzed during the growing season to monitor the nutrient status of the wheat. Timely management of diseases, insects and weeds are essential for profitable wheat production.

> Date Printed: 05-14-2012 Database Version 3.1 Crop Note Page 1 of 2

Double-Crop Soybeans, Piedmont

Double-crop soybeans should be planted as early in June as possible with planting completed by July 4th. When no-tilling soybeans in small grain straw, it is essential to manage the straw to achieve adequate plant populations. Review the NCSU Official Variety "green book" and information from private companies to select a high yielding variety with the characteristics needed for your area and conditions. Plant 4-6 seed/row foot for 7-8" drills and 6-8 seed/row foot for 15" rows. Seeding depth should be 1-1 1/2" and adequate depth control is essential. Phosphorus and potash recommended for the soybeans can be applied to the wheat in the Fall. Soybeans produce their own nitrogen and are normally grown without additions of nitrogen. However, applications of 20-30 lbs/acre N are sometimes made at planting to promote early growth and vigor. Tissue samples can be analyzed during the growing season to monitor the overall nutrient status of the soybeans. Timely management of weeds and insects is essential for profitable double crop soybean production.

> Database Version 3.1 Date Printed: 05-14-2012

FROM. 19th guidance document.

ANIMAL WASTE LAND APPLICATION SETBACKS* UPDATED SEPTEMBER 20, 2006 SB 1217 INTERAGENCY GROUP

Setbacks for swine waste land application areas vary according to permit, the date of facility siting and/or the date the waste application field is placed in use. Setbacks for other types of operations with coverage under State General Permits and as defined in G.S. 143-215.10B, have a single setback requirement. The following outline provides setback requirements by time periods and legislation.

- I. All operations meeting the G.S. 143-215.10B definitions (formerly 2H.0200 thresholds), including swine farms sited or expanded before September 30, 1995 are required to have from the outer perimeter of the waste application area the following:
 - A. A 25-foot vegetative buffer from perennial water (2H.0217 (h)(iii))
 - B. A 200-foot distance to dwelling not owned by the producer (NRCS Standard Code 633)
 - C. A 100-foot distance to a well (NRCS Standard Code 633 Standard)

For swine farms with a waste application field put in place after August 27, 1997 category IV applies:

- II. Swine farms sited after September 30, 1995 and constructed or expanded before August 27, 1997 must meet items I A, B, and C and have from the outer perimeter of the waste application area the following:
 - A. A 50-foot distance to perennial stream/river other than an irrigation ditch or canal (Senate Bill 1080)
 - B. A 50-foot distance to a residential property boundary (Senate Bill 1080)

For waste application fields put in place after August 27, 1997 category IV applies:

- III. Swine farms sited or expanded after August 27, 1997 must meet the requirements of items I A, B, and C and must have from the outer perimeter of the waste application area the following:
 - A. A 75-foot distance to a perennial stream/river other than an irrigation ditch or canal (House Bill 515)
 - B. A 75-foot distance to a residential property boundary (House Bill 515)
- IV. Any swine farm regardless of siting date must meet the 75-foot requirements of item III for any new waste application field put in use after August 27, 1997 which:
 - A. As of August 27, 1997, the waste application field was not within the property boundary where the waste was generated or
 - B. As of August 27, 1997, the waste application field was not within the property boundary where waste was previously applied from the operation.

Other new waste application fields within the property boundary where the waste is generated or has been previously applied are not required to meet the 75-foot buffer, but must comply with items I and II.

^{*} Guidance does not reflect Neuse, Tar-Pam and Jordan Lake Rule requirements

- All farms renewing NPDES permits after that date must implement one or a combination of the following waste application setbacks from surface waters including streams, lakes, and other surface waters, and conduits to those waters (40 CFR 412.4):
 - Ar 100-foot setback (no closer than 100 feet to any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface waters);

B. 35-foot wide vegetated buffer can be substituted for the 100-foot setback specified in A:

C. 20-foot wide vegetated setback with water table control structures to trap particulate nutrient losses, or any other compliance alternative approved by the Director of DWO that provides pollutant reductions equivalent or better than reductions achieved by the 100-foot setback specified in A.